

Length of bony palate from anterior termination of premaxillæ to opening of posterior nares, (measured to end of small posterior projec- ting process in the middle of the palate,) ...	1·85	·047
Breadth of bony palate between penultimate mo- lars (1st true molars,) .....	0·47	·012
Length of last upper premolar, .....	0·38	·0095
„ of 1st molar, .....	0·26	·0065
Breadth of do., .....	0·37	·009

Of the limb bones the humerus is 3·1 inches long, the radius 3, the femur 3·13, and the tibia 3·58.

*P. S.*—Since the preceding description of *Ursus Gedrosianus* was in type, Dr. Duke has written to the ‘Pioneer’ to say that he has received two imperfect skins of a ‘Mamh’ obtained near Quetta, and that they are black. It remains to be seen whether the black and brown bears of Baluchistan are varieties or distinct. The former is more probable.

XV.—*On an apparently new hare, and some other mammalia from Gilgit.*

—By W. T. BLANFORD, F. R. S.

(Received and Read Novr. 7th, 1877.)

A small collection of mammals made in the course of last year by Captain Biddulph in the extreme north-western part of Kashmir was left by him in the Indian Museum, with a request that I would examine the specimens. The skins comprise a fox, an otter, a hare, a *Lagomys*, and a mouse.

The fox appears to me to be probably a form of *Vulpes montanus* in summer dress. A similar specimen was obtained by Captain Biddulph in Káshghar and made over by him to Dr. Stoliczka. The fur is very short; there being, in fact, scarcely anything but the underfur left, and even that is thin. Under these conditions the colour differs widely from that of *V. montanus* in its winter garb, and most skins are taken when the fur is in fine condition. The specimen is from Hanza (probably a place of that name N. N. E. of Gilgit), and was obtained at an elevation of 8000 feet. Another precisely similar, except that the ears were less black, was also procured.

In the skin before me, the face is rufous, deepest in front of the eyes, the ears sooty black outside, the middle of the back ferruginous with a brown tinge from the under fur, a very distinct rufous cross band on the shoulders, so as to form a marked cross on the back, and the sides of the body very pale. Lower parts dirty white. Tail not full, very woolly, (as is the fur generally,) slightly rufous above, elsewhere dirty white mixed with

black hairs, the tail-tip white. Legs rufous externally with dark hairs intermixed.

The otter-skin unfortunately wants the skull, and it is impossible to determine it accurately. It has evidently belonged to a large form, approaching *Lutra vulgaris* in size, but it is much paler in colour. The upper parts are somewhat light brown, the under fur being very pale whitish brown at the base, then rich wood-brown, rather rufous, with numerous longer hairs mixed, which have whitish tips, giving a pale speckled appearance to the fur. On the lower parts the under fur is white at the base, then light brown, with long white hairs intermixed, so that the general colour is slightly sullied white. The whiskers are white. Sides of the head below the ears and eyes, chin, and throat rather whiter than the breast and abdomen.

This animal may belong to the Central and Northern Asiatic species, referred by various naturalists to *L. vulgaris*. The exact locality is not given, but the specimen was doubtless obtained on the upper Indus or one of its tributaries.

Of the mouse only a dried skin is preserved. The locality is marked 'Hunza 8000 feet,' and is probably the place already mentioned. I am unable to identify this skin with any known species: it closely resembles *Mus Bactrianus*, but appears distinguished by having the upper surface of the tail very much darker than the lower and by longer feet. The colour above is brown, below whitish, the tail dark brown above, pale isabelline below, feet whitish. The skin measures from nose to rump 2·6, tail very little above 2, tarsus without claws 0·75. I do not like to propose a new name on the amount of evidence before me. *M. Bactrianus* is said by Jerdon to have been sent from Kashmir, the only localities given by Blyth however are in the Panjab. I have since obtained this mouse from various parts of Sind, from Ajmere, where it has been found by Major St. John, and throughout many parts of Baluchistan and Southern Persia. It is possible that the Hunza mouse may be merely a variety.

The hare I am unable to identify with any known species and I therefore propose to name it from its discoverer.

#### LEPUS BIDDULPHI, sp. nov.

*L. minor*, ad *L. Tibetanum*, *L. Pamirensem* que *proxime accedens, supra pallide rufescens, pilorum apicibus nigris intermixtis, infra albus, caudæ superne nigræ, uropygio cum dorso concolore, auribus mediocribus, apicibus ad marginem nigris, collo pectoreque pallide rufescentibus; vellere molli, longiusculo, ad basin cinereo. Long. corii desiccati a rostro ad basin caudæ 19, caudæ cum pilis 4·5, tarsi 5, auris extus 4·25 poll. Angl.*

*Hab. in Yassin (Gilgit) provinciâ ad Kashmir pertinente, ultra flumen Indum jacente.*

The general colour above is rather pale rufous, with a dusky wash caused by the tips of the longer hairs being black. There does not appear, in the only skin I have examined, to be the grey rump of *L. Pamirensis* and several other Central Asiatic species. The forehead and central portion of the muzzle is pale rufescent grey, the hairs rufous ashy at the base, then brown, and isabelline at the tips. The sides of the head are paler, but a few black tips are found on the hairs of the cheeks. There is a pale ill-defined band on each side of the muzzle, including the eye. Whiskers black at the base, white towards the end; some wholly white. Anterior portion of the ears outside nearly the same colour as the forehead, hair soft, not so dense and harsh as in *L. Pamirensis*, posterior portion of outer surface pale rufous, extreme tip of ear black outside, the black running about a third of the way down the posterior edge. Neck all round and breast pale rufous, hairs ashy at the base and pale tipped, except on the nape. Fur of body soft, on the hinder part of the back the hair is about  $1\frac{1}{4}$  inches long, and consists of coarser piles mixed with fine woolly under fur. Throughout the dorsal portion the hair is ashy at the base, then isabelline, followed by a brown ring, the end being pale rufous, except in the longest hairs, which are tipped black. Tail sooty black above. Limbs externally pale rufous. Underparts white.

The skull of *Lepus Biddulphi* differs from that of *L. Tibetanus* in the following characters. The parietals are broader and flatter, the width of the frontals greater and they are somewhat more convex just behind the post-orbital processes. The nasals are truncated behind, the angle formed by the junction of the posterior and exterior margins being a right angle as in *L. Stoliczkanus* and *L. Yarkandensis*, differing in this respect from *L. Tibetanus*, *L. Pamirensis*, and *L. hypsibius*. The hinder extremities of the premaxillæ are parallel with the hinder margin of the nasals, the jugal is narrower vertically. The muzzle is less high and the whole skull flatter. The palatal opening is smaller and differently formed behind. The opening of the posterior nares is narrower. The lower jaw is much less high.

The nearest approach to the skull of *L. Biddulphi*, amongst the species of which specimens are available for comparison, is made by the hare which inhabits the Karakash valley between Ladak and Yarkand. This species much resembles *L. pallipes* of Hodgson from the portion of Tibet north of Nepal and Sikkim. In the skull of the Karakash hare, however, the nasals extend backwards to some distance beyond the terminations of the premaxillæ, the zygomatic arch is broader and more convex beneath, the postorbital processes are differently shaped and the whole skull larger.



The skull, extracted from the skin, is imperfect behind, and the length cannot be measured. It was probably under  $3\frac{1}{2}$  inches. The following are some of the dimensions :

	In.	Met.
Length of suture between nasal bones,.....	1·23	·031
Greatest breadth across hinder portion of zygomatic arches, .....	1·6	·04
Breadth of brain case behind glenoid fossa, ...	1·17	·029
Breadth of frontal region where narrowest behind post-orbital processes, .....	0·57	·014
Breadth of nasals where widest near posterior termination,.....	0·62	·016
"    "    at anterior end, .....	0·51	·013
Length of bony palate behind anterior palatal orifices,.....	0·25	·006
Width of do. between anterior molars,.....	0·45	·011
Length of row upper molars, .....	0·61	·015
"    of lower jaw from angle to symphysis,...	2·25	·057
Height do. to condyle, .....	1·32	·033

The *Lagomys* I find somewhat difficult to determine. Captain Bidulpha has collected two specimens, one from the Gilgit district, obtained at an elevation of 10,000 feet, the other from the Kishengunga valley, at 7500 ft. On the whole these specimens appear to me to agree best with *L. auritus*, the species inhabiting the Indus valley in Ladak at moderate elevations, but the ears, so far as can be judged, are much smaller, scarcely exceeding in size those of *L. Roylei*. The dimensions however appear larger than those of *L. Roylei*, and the fur is much longer and softer. The colouration of the upper parts is greyish brown, the face being rufous to a variable extent, and there being in both skins a marked rufous patch below the ears, (the glandular patch noticed in skins of some species of *Lagomys* by Dr. Günther; Ann. Mag. Nat. Hist. Sept. 1875, Ser. 4, Vol. XVI, p. 230,) though this is evidently a variable character, for whilst in one skin, and this has the forehead less rufous than the other, the patch below the ear is ferruginous, and the breast, shoulders and flanks rufous, in the other skin the tinge is much fainter and is confined to the sides of the neck. The lower parts are white, faintly tinged with rufous in one specimen, the blackish basal portion of the hair shewing conspicuously.

The skull is very near that of both *L. auritus* and *L. Roylei*; from that of the former it only differs in having the nasals a little broader behind, and the orbits a trifle smaller, and from that of the latter by

similar small differences. Neither the external characters nor the skull agree with *L. rufescens*.

The following is a summarized list of the species above discussed :

1. *Vulpes montanus*.
2. *Lutra*, either *L. vulgaris*, var. or an allied species.
3. *Mus*, probably new, allied to *M. Bactrianus*.
4. *Lepus Biddulphi*, sp. nov.
5. *Lagomys auritus*? var.

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XVI.—*On a supposed new Sheep from the Central Hills of Kelat.*—By  
A. O. HUME.

(Received 30th October; Read 7th November, 1877.)

(With plate IV.)

I received last year from Major Sandeman, C. S. I., Political Superintendent of Kelat, the head and horns of a sheep which he supposed to be the same as the orial (*Ovis cycloceros*) and which had been obtained in the Hills above the Bolan pass.

Directly I saw these horns I was struck with their greater length and slenderness, and their peculiar twist, and after comparing them with two specimens of *O. Vignei*, and numerous specimens of *O. cycloceros*, and the description of *O. Gmelini*, the head appears to me to belong to a hitherto undescribed species.

In all these three species, as far as I can make out, each horn lies in one plane, whereas in the present species the horn twists out, in a capital S. fashion. There is in fact much the same difference between the horns of the present species and of *O. cycloceros*, that there is between those of *O. Kareleni*, and *O. Hodgsoni*.

It seems to me not impossible that this species may be one at any rate of the wild stocks from which the domesticated breed originated.

I propose to name this sheep

OVIS BLANFORDI.

after my friend Mr. W. T. Blanford, our well known Zoologist and Geologist.

The following are the dimensions of the skull and horns with corresponding dimensions of those of a specimen of *O. cycloceros*, of apparently the same age, viz., about 8 years. In the case of each measurement, the dimension first given is that of *O. Blanfordi*.